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# MODERNIZATION OF SMALL SCALE INDUSTRY IN INDIA

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# D.2.3. MODERNISATION OF SMALL SCALE INDUSTRY IN INDIA

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## Definition and concept of small industry:

1. The term 'small industries' comprises different groups of industry, each having distinctive characteristics and requiring specialised attention. All-India Boards/ Commissions have been set up for the development of handlooms, silk, coir, handicrafts and khadi and village industries. Industries not covered by these organisations have been grouped into what are known as small scale industries. As the name implies, these are industries with comparatively small capital outlay. According to the working definition adopted by the Government, small scale industries include all industrial units with a capital investment of not more than Rs.500,000/-. Capital investment here refers to value of fixed assets only, i.e. value of land, building, machinery and equipment. There is no limit, according to the definition, on the working capital or the number of workers employed. A few typical examples of small scale industries in India are: bicycles and parts, sewing machines and parts, small machine tools, domestic electrical appliances, cutlery, toys, footwear, leather goods, etc.

2. There is no rigid demarcation of spheres between the small and village industries on the one side, or between small and medium industries on the other. Perhaps a distinction between small and village industries can be drawn on the basis of the level of mechanisation. Small scale industries, by and large, can be said to be industries following modern techniques, methods and tools of production, while village or cottage industries follow the traditional. The distinction between small and medium or large industries is one largely based on the size of the plant or the scale of operation. The items of manufacture are very often common, but the main policy of the development programmes for small scale industries is to encourage small industries in fields where economies work in their favour. Where small industries can be

established with equal efficiency as on large scale, common production programmes have been worked out so that small units are not squeezed out by unfair sales policies or other such methods of competition.

3. Development of small-scale industries has been assigned high priority and importance in the development programmes in India. Several important social and economic objectives are sought to be achieved by the promotion of these industries. They help in providing large-scale employment at relatively small capital cost. They are expected to meet a substantial part of the increased demand for consumer goods and simple producer goods in the country. They help in mobilising resources and skill which might otherwise remain unutilised. They facilitate decentralised industrial development and ensure a more equitable distribution of the national income. In order to enable the small industries to play this vital role in the national economy, it is important that they should be assisted to develop into strong and healthy units. The main problem of small industries in India today is the problem of their weakness. This weakness is caused by a variety of factors the chief among them being lack of technical knowledge, inadequacy of capital and inefficient methods of management and marketing. The main objective of the development programmes for small scale industries in India is to help the small industrialists to overcome these handicaps and difficulties and to acquire sufficient competitive strength and vitality to stand on their own.

Modernisation: main problems:-

4. Modernisation of small scale industries in India as in all developing countries presents several difficult problems. The chief among them is the danger of technological unemployment. Modernisation need not be equated with mechanisation as it involves not only introduction of modern machinery and equipment, but also modern methods of management, marketing, etc. But invariably modernisation will lead to mechanisation and care has to be taken to ensure that mechanisation does not cause serious disturbances in the social order. The degree and pace of mechanisation have to be gradual in all developing countries so as to avoid the stresses and strains of sudden changes. A danger to be guarded against is the tendency to go in for modernisation at all costs. What is important is the rapid development of small-scale industries, and the degree and scope of modernisation have to be determined by its contribution to development.

5. The main difficulties and handicaps in achieving rapid modernisation of small scale industries may be

listed as follows:-

(a) Lack of knowledge on the techniques and methods of modernisation;

(b) Difficulties in securing modern machinery and equipment;

(c) Shortage of raw materials, parts and components of the right standard and specifications;

(d) Shortage of trained workmen, technicians and managers;

(e) Inadequate credit facilities;

(f) Difficulties in securing good factory accommodation;

(g) Shortage of electricity and other sources of power; and

(h) Difficulties in Marketing.

6. Some of these problems are applicable not only to small scale industries, but also to medium and large industries in India. But these problems are particularly acute in the case of small scale industries. The steps taken by the Government and other such agencies to help the small industrialists to overcome these difficulties and accelerate the pace of modernisation and development are outlined briefly in the following paragraphs.

Modernisation -- role of extension agencies:-

7. Lack of knowledge of modern tools, methods of production and management has been the main handicap for small industries in India. The small industrialists with their limited resources cannot afford to have consultants or highly qualified engineers or experts. The Government have, therefore, stepped in to provide this assistance to small industrialists, and have established the Central Small Industries Organisation (C.S.I.O.) for this purpose The CSIO consists of an Headquarters office for co-ordination and sixteen Small Industries Service Institutes, four Branch Institutes and over sixty Extension Centres spread all over the country. The Industrial Extension Service is intended to solve the technological problems of small scale industries and help them in increasing their productivity. The Institutes are manned by officers

with qualifications and experience in different branches of technology, business management, industrial designing, etc. The technical assistance programme includes advice on selection of industries which is followed by guidance in planning of production, selection of machinery and raw materials, factory lay-out, designing of tools, jigs and fixtures, etc. Even after the units have gone into production, the field officers of the Small Industries Service Institutes visit the factories and assist the small industrialists in removing manufacturing defects and effecting economies in fuel and raw materials and increasing productivity. The technical staff also renders services like repair of machinery, testing and chemical analysis. The Institutes and Extension Centres are located in areas where small units are already concentrated or where there is potential for small industries growth. Workshops attached to the Institutes are equipped with machinery for providing certain common service facilities which an average small unit cannot afford to own.

8. The Small Industries Service Institutes have also a number of mobile vans to go round the rural areas in order to demonstrate the use of modern machinery and equipment by various operations and processes. These vans are fitted with up-to-date tools and machines in trades like blacksmithy, carpentry, shoe-making, leather goods, electroplating, electric wiring, winding, etc. The artisans are allowed to operate the machines mounted on the vans and to repair their tools. The staff attached to the mobile workshops give information about the specifications, and sources of availability of machines and processes of modern production.

9. Another important programme of the Central Small Industries Organisation is to assist the small industrialists to improve the designs of their products. This programme aims at improving product designs of various trades by studying consumer tastes, functional values, aesthetic appeal and the manufacturing capacity of the producer. Product designs are prepared at the initiative of the designers themselves or at the instance of small industrialists who are free to approach them for this purpose. Every detail is worked out and finally a scale model, drawing or a prototype is prepared which is offered to the industrialists for adoption.

10. Guidance to small industrialists in the choice of items for manufacture and for proper location is provided by the CSIO on the basis of extensive economic investigations and surveys. The Economic Investigation Division of the CSIO conduct surveys to study the

economics of selected industries with a view to assessing their present position and future prospects and suggest steps to be taken for their rational development. They also undertake Area Surveys to find out the level of industrial activities in different areas and their potentiality for development based on the availability of human resources, raw materials, power, transport, consumption pattern and other such factors. The reports on these surveys provide factual information and analysis of the existing and potential industries and help the authorities interested in the development of these areas to chalk out a programme of industrial development. To assist individual manufacturers, market research is undertaken by the Economic Investigation Division by which useful market information like consumer demand, consumer preferences, etc. is gathered and furnished to the manufacturers. The Economic Investigation Division has also taken up the preparation of 'Industries Prospects Sheets' on a large number of industries. These 'prospects sheets' provide information on the technical feasibility, competitiveness and size of investment for an economic unit and the supply and demand position. These surveys act as a guide to entrepreneurs in choosing the right lines of manufacture.

11. One of the important objectives of the development programmes for small scale industries in India is the extension of small industries to economically backward and rural areas. It was found that the impact of the small industries development programme in the early years had been confined to big cities and towns and that the backward and rural areas had not been very much influenced by this programme. It was, therefore, decided to launch intensive development campaigns in backward and rural areas which offered potentialities for development of small scale industries. The main objective of the campaigns is to create a climate conducive to the development of small scale industries by intensive instruction and information about the scope for small industries and the use of modern machinery and methods of production. The campaign is conducted in different stages. In the first phase, a quick survey of the industrial potentialities of the district is undertaken. This is followed by a contact programme. Officers of the CSIO, the State Government and other such agencies and prominent non-official leaders tour the area, contact the prospective entrepreneurs and explain to them the prospects of particular industries and the assistance available from various agencies. The officers in charge of the programme visit the area again and do the follow-up action on the contacts earlier established. Specific guidance is provided in the

selection of industries, machinery and equipment, location of factory, training of workers and sources from which assistance can be obtained. In the case of existing units, the extension staff gives advice on replacement of outmoded machinery, economic use of raw materials and improved techniques and methods of production. Thus the message of modernisation and improvement is taken to the doors of the people in backward and rural areas instead of waiting for them to approach the extension agencies on their own initiative.

Machinery and equipment:-

12. Introduction of modern machinery and equipment is one of the basic postulates for development. The main task of the Industrial Extension Service agencies is to create an awareness among the small entrepreneurs of the need for modern machinery and equipment. Small industrialists can obtain assistance freely from the extension agencies regarding the right type of machinery and equipment to be used by them, but they often find it difficult to follow-up this advice because of the inadequacy of capital or non-availability of machines from indigenous sources. In order to enable the small industrialists to overcome this difficulty the Government have introduced a scheme of supplying machinery on hire-purchase terms. This scheme is operated by the National Small Industries Corporation, which is a Government undertaking, with the assistance of the CSIO and the State Departments of Industries. Normally, a small industrialist has to pay only 20% of the value of the machines required by him as initial deposit; the balance is to be paid in instalments spread over a period of seven years. The Corporation since its inception has received applications from industrialists for supply of over 18,000 machines valued at about Rs.190 million. Over 6,500 machines valued at Rs.83 million have already been supplied to small industrialists. A special advantage of this scheme is that in addition to being a scheme of financial assistance, it facilitates the introduction of machinery and equipment of standard quality. The National Small Industries Corporation supplies the machinery as suggested or demanded by the applicants, but invariably care is taken to ensure that the applicants get machinery and equipment of standard quality even if the price is comparatively higher. The scheme thus helps in the promotion of a consciousness for standards and quality which is very important for development.

13. A major difficulty faced in the operation of the scheme of supply of machinery on hire-purchase basis

has been the delay in getting machinery and equipment of standard quality from the manufacturers. The indigenous machine building industry in India is not able to cope with the growing demand for new machines and tools created by the tempo of development. In many cases, particularly in the case of special purpose machines, there is no indigenous production and orders have to be placed with foreign manufacturers. The negotiations for placement of orders and the long delivery period demanded by manufacturers cause delays of eighteen to twenty months in many cases and create difficulties to a small entrepreneur in the matter of planning his production programme. Shortage of foreign exchange has aggravated the difficulties of the small entrepreneurs. They have to face difficulties and delays not only in securing machinery and equipment, but to a much larger extent in getting raw materials, components and parts. During the past few years, several new small industries have been set up which require import of raw materials and components, and progress has thus brought in its wake the problem of shortages. Several small units find it difficult to get raw materials of the right quality and for their full requirements and this has no doubt retarded the pace of modernisation. The Industrial Extension Service agencies are constantly endeavouring to steer development of new industries to fields where there will be no shortages of raw materials. They are also encouraging diversion of existing units from fields where shortages are chronic to easier fields. These measures are unavoidable and even necessary to maintain the tempo of development in the context of foreign exchange shortages.

Training:-

14. Training of personnel for and from small scale industries is quite important in any programme of modernisation. Introduction of new machinery and new process and techniques of production has brought into focus the great shortage of trained personnel at all levels. To enable the industry to absorb the technological developments quickly, the Government have been encouraging foreign collaboration in special fields. Several small industries have already been established with foreign collaboration and Indian technicians get the training and know-how required for operation of the industries from the foreign collaborators. A few examples of such foreign collaboration in small industry are water meters, electronic instruments, textile accessories, razor blades, automobile accessories, etc.

15. Arrangements for training through foreign

collaboration or by foreign agencies can meet only a fraction of the problem. Training is required for personnel at all levels -- managers, supervisors and workers, and facilities have to be organised to suit their specific requirements, if modernisation is to be quick and effective.

16. The special characteristic of a small industry is that it has no specialisation in management. The manager or proprietor is generally responsible for production, marketing, financing and all other aspects of the undertaking. The major problem in training such people is to convince them that they need and can benefit from training. Even if they are convinced, it becomes difficult for them to leave their business to attend a regular training course. Formal management courses of the type given in Universities will not be suitable for managers of small firms. Therefore, a special course of training tailored to meet their requirements and to suit their convenience, has to be organised. The Small Industries Service Institutes have organised such courses of training for managers of small businesses during evening hours. The subjects covered in these courses include principles and practices of management, factory organisation, marketing and publicity, legal aspects, financial and cost accounting, etc. Intensive courses are conducted in specific subjects like quality control, work-study, production planning and control, management accounting, etc.

17. Training for workers drawn from small industries is provided by the Small Industries Service Institutes and Extension Centres. The main objective of this training is to make a worker more skilled in his own trade. The workers who come for training generally do not have any educational qualifications. Nevertheless they have shown a remarkable capacity to absorb quickly modern techniques and processes of production. Some of the subjects in which training is given to workers by the CSIO are machine shop practice, tool room, heat-treatment, electroplating, footwear, glass blowing, etc.

18. As part of the training programme, the Central Small Industries Organisation also arranges study-cum-observation visits of small industrialists and workers to selected large and small-scale units. These visits give them opportunities to observe modern techniques of production and management.

19. As a special step for improving the technological skills of small entrepreneurs, the Government have established three major Proto-type Production-cum-Training

Centres with the assistance of foreign Governments, one in Okhla (near Delhi) with the assistance of the Government of West Germany, another at Rajkot with the assistance of the Agency for International Development of the United States and the third at Howrah (Calcutta) with the help of the Government of Japan. The main objective of these Centres is to develop prototype of machines and equipment and pass them on to small-scale industrial units for commercial exploitation. These Centres also provide advanced training to skilled workers and supervisors drawn from small-scale industries.

20. Training of extension staff is as important as training of managers, supervisors and workers from industry in any planned scheme of development of small industries. The extension staff function as the agencies for the modernisation process and it is necessary that they should be up-to-date in their own skills and proficient in communicating them to others. In view of the important role played by the Industrial Extension Service agencies in the different programmes of assistance to small industrialists, the need for this is greater in India. A major difficulty has been in getting technical staff of the required qualifications and experience to man the Industrial Extension Service. The shortage of technical staff is a general problem in all developing countries; but the problem is specially acute in the case of technical personnel required for Extension Service. The remedy for this problem is to provide continuous training to those who have been recruited and equip them for the tasks expected of them. The Government of India have recognised the need for such intensive training and have been deputing the staff of the CSIO to selected large industrial units and training institutions in India and also in foreign countries. An Industrial Extension Training Institute has been recently established at Hyderabad by the Government of India to provide special training in the techniques of industrial extension service to the staff of the CSIO and of the State Departments of Industries.

Credit:-

21. The pace of modernisation in the field of small-scale industries has been very much hampered by difficulties in getting credit on easy terms. Small entrepreneurs invariably start their business with extremely limited capital scraped from their own resources or borrowed at exorbitant rates of interest. Even if they know how to improve their production, they often fail in this task because of their inability to raise capital for acquiring

good factory accommodation or new machinery and equipment or for recurring expenses. Banks and other institutional agencies of credit find these units ineligible for lending and they are therefore thrown back on the mercies of money-lenders. Small industrialists could obtain loans from the State Governments for capital and working capital requirements, but the terms and conditions were so rigid that these loans were not of real assistance to the needy entrepreneurs. One of the earliest steps taken for the development of small-scale industries was to liberalise the terms and conditions under which loans could be advanced to them. Now loans upto Rs.1,000 can be given by the State Governments on personal bonds without sureties, upto Rs.5,000 against two personal sureties, and above Rs.5,000 at 75% of the security offered. These loans are repayable in easy instalments spread over a period of ten years.

22. The programme of credit assistance to small scale industries by the Government is intended only to supplement the efforts of institutional agencies like the commercial and co-operative banks, the State Finance Corporations, the State Bank of India, etc. The State Bank of India has already taken the initiative in providing credit on easy terms to small scale units through its branches spread all over the country. Other banking institutions are also now coming to field. Recently, a credit guarantee scheme has been introduced by the Reserve Bank of India to ensure a degree of protection to the lending institutions against possible losses in respect of their advances to small industrialists.

Factory accommodation:-

23. Modernisation often requires alterations and improvements in factory space. Absence of good factory accommodation has been a serious handicap for the development of small industries. Even if small industrialists could raise the capital to build a factory, formalities of acquiring a suitable land, getting the plans approved by the local authorities, securing supply of water and power and other such requirements presented serious difficulties to them. In order to meet this difficulty, the Government initiated the programme of Industrial Estates in 1955, by which factory accommodation could be made available to small entrepreneurs at reasonable cost. An Industrial Estate is a group of factories constructed on an economic scale in suitable sites with facilities of water, power, transport, etc. and provided with special arrangements for technical guidance and common service

facilities. The Estate combines in itself some of the important schemes of assistance to small industries, and provides an ideal tool for integrated development. The better conditions of work in the factories increase the productivity of the workers. It provides opportunities for small units to observe the working of each other and benefit from such experience. In many cases it helps small units to make use of each other's services and goods and thus effect economies in production. It facilitates organisation of common service facilities like common arrangements for transport, purchase of raw materials and publicity for sale of finished goods. By the end of the Third Plan period, over 500 Industrial Estates sponsored by the Government will be functioning in different parts of the country, besides several others set up by private agencies.

Electric power:-

24. Introduction of modern technology involves use of power, but non-availability of power has been a major factor retarding the progress in this field. Out of the 5,71,000 villages and towns in India, hardly 23,000 had electric power by the end of the Second Plan. Even by the end of the Third Plan their number will not go beyond 43,000. This limits the scope of extension of small industries to rural and under-developed areas. Even where power is available, uninterrupted supply at rates favourable to small consumers is necessary to accelerate the pace of modernisation. In India power rates vary from place to place. In order to help the small industrialists to get power at economic rates, the Government have introduced a scheme of subsidising the cost of power.

Limitation of markets:-

25. An important limiting factor to modernisation is the size of the market. Markets for small industries' products are essentially local or regional. But in some cases they can extend to the entire country. In India small industry is a free sector and requires no licensing as is the case with large scale enterprises. This sometimes results in over-crowding and unwanted competition. In a sheltered market small producers are able to sell easily but this situation need not persist. Small industrialists generally concentrate on production and neglect marketing.

26. Modernisation calls for quality consciousness among buyers and wider market. Expanded marketing requires

selling arrangements, different from those to which the small industry is used to when its markets are narrow and limited. Brands, advertising and product display have to be used to serve larger territories effectively. Better supervision of sales becomes important.

27. In order to solve some of these problems and to provide an assured market the CSIO has been laying increasing emphasis on the development of sub-contracting system or the growth of ancillary units. The sub-contracting system is not yet fully developed in the country. A few large scale industries -- public and private -- have shown their eagerness to develop sub-contracting relationship with smaller units which include giving them technical know-how, drawings, designs and even raw materials. The Government have been giving special assistance and encouragement for Industrial Units functioning as ancillaries to large industries and it is hoped that this pattern of development will help in accelerating the pace of modernisation.

28. Another way in which the size of the market is assured to small units is by enlisting them for quoting against orders for Government stores purchase. The Union Government is the largest single buyer of the country and therefore whatever it can buy on a regular basis is a positive encouragement to small producers. A scheme has been devised under which small manufacturers are entitled to a price preference upto 15% over those quoted by large industries. Twenty-seven items of stores usually required by the Govt. have been reserved for purchases from small producers. This has resulted in increasing purchases being made from small industries and substantially contributed to their strength.

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